

Amendments to the Specification:

Please replace paragraph [0057] with the following rewritten paragraph:

Such localization of electrons (holes) bound by an isoelectronic trap smears out the eigenstates of the isoelectronic impurity trap in k-space, i.e., momentum vector characteristics, thereby causing the impurity electronic states to be delocalized in k-space. This delocalization of the impurity electronic states in k-space has beneficial effects that are utilized in this invention. For example, when an indirect bandgap semiconductor material, such as GaP, is doped with an isoelectronic impurity, such as N, this delocalization of the impurity electronic states in k-space increases the probability of radiative recombination in such indirect bandgap semiconductor materials, thereby causing them to behave more like direct bandgap materials. The benefits of this feature combined with the isoelectronic ~~co-doping~~ co-doping of GaP according to this invention for electronic devices will be described in more detail below.